A. General Information

1. About the Manual

Please make sure that you comply with the following installation instructions and the specifics concerning the utilization of your MaxxLuxx® product as this will ascertain the successful, safe operation of the product as well as a long useful life.

2. Description of the Product

MaxxLuxx® products are lighting objects made of acrylic glass or other materials with integrated LEDs, which are molded into their position with a flexible casting resin, which protects them against adverse environmental impact. MaxxLuxx® lighting products are suitable for indoor as well as outdoor use. At a very minimum, they meet the standards of IP 65 and may be in compliance with standards up to IP 68.

MaxxLuxx® lighting objects can be ordered individually and pre-installed on a substructure, for instance aluminum profiles, stainless steel pipes, Dibond hoods, etc.

3. Intended Uses

01. MaxxLuxx® products are designed for use as lighting sources as well as for advertising and decoration. If you are planning to use these products for any other purposes, please contact us first to discuss the details. If these products are used in applications other than their intended uses or if they are not used in compliance with the instructions, this may void their warranty coverage or the manufacturer's guarantee.

02. The lighting products have been designated specifically for the above described purposes and are therefore not suitable toys for children. Consequently, these products must be kept out of children's reach.

4. Safety Warnings

01. Make absolutely certain that electrical connections are installed exclusively by a professional electrician in accordance with the connection diagram enclosed with the product so that compliance with all safety requirements is ensured.

02. Pulling on any of the cables is prohibited! Never carry the individual lighting products on their connection cords. If the connection cord molded into the lighting product should not be mounted properly, please contact us prior to switching on the lighting installations.

03. Observe the standard ESD safety requirements for LEDs when installing and using the products.

04. We recommend the use of the power supplies (converters) proposed by VGS to connect your lighting products to mains. Doing so will prevent malfunctions or damages. In any event, you will have to use only power supplies (converters) that are in compliance with the applicable safety provisions and that supply a maximum effective current of 3 A in the event of a deficiency. Please also remember that any improper installation, usage, the use of incompatible power supplies (converters) or any interference with the mechanical or electrical structures will void the warranty and/or guarantee entitlements and may result in serious safety problems.

05. The cable connections between lighting objects and the power supply (converter) must be insulated to expertly protect them against penetration by water. They also have to be mounted in compliance with the electrical standards. Install lines in outdoor areas in compliance with the standards that have to be equipped with UV protection among other things.

06. When you install the products, please keep in mind that acrylic glass does expand differently when exposed to heat (or shrinks at a different ratio when exposed to cold temperatures) than other materials, such as metal, wood, concrete, rock, etc. and that the resulting tension has to be prevented. Especially when you mount – for instance – larger acrylic objects onto metal or rock foundations, you will have to factor in the different expansion coefficients of acrylics, metals or rock/concrete. Failure to do so may in some cases cause tension cracks in the lighting products (for example in the mounting areas), which may lead to electrical as well as mechanical problems and subsequently to the failure of the lighting products as well as other significant defects. Please make certain that the products are mounted in such a manner that the different levels of expansion are accommodated (for instance by drilling long holes).

07. Also make absolutely sure that water cannot collect between the elements made of acrylic glass and the mounting foundation (or the fixation).

B. Installation and Use of MaxxLuxx® Lighting Products

1. Installation and Use

01. Always use the existing mounting points on the lighting products. MaxxLuxx® lighting products have sack holes with windings on the back. To find their exact location and dimensions, check the installation template or installation file. Please be aware that our lighting objects need to be installed on a level surface. If this requirement is not fulfilled, for example during the installation on the curved side of a ship, you have to make sure that the differences in space are compensated by appropriate measures.

02. Important: The drilling of additional holes or the modification of existing drill holes in the lighting products may result in irreparable damages to the lighting products and to the forfeiture of warranty or guarantee entitlements.

03. If you would like to use different mounting options than the ones defined by us, you will have to clarify the respective technical requirements.

04. The lighting products are shipped without connection terminals and have insulated cord ends. Please pay attention to the respective identifications of the wires. The provisions applicable to the small voltage protection classification (SELV) apply to these products. This means that you can, for instance, establish soldered connections. In the former case, the insulation will have to be provided with a shrinkage hose with interior adhesive or a pressed connection using a linear connector (sourced e.g. from vendor Klauke). The insulation of the linear connection requires shrinking in this case.

05. Please comply strictly with the instructions in the wiring diagram, which is enclosed with every shipment of the lighting products. If you should not have such instructions on hand, please contact us prior to connecting the lighting products. If you are planning to connect multiple lighting products, make sure you install the

power supply (converter) in as central a location and as close to the lighting products as possible. Choose cords that are preferably of the same length for all lighting products as this will prevent brightness variations between the individual lighting sources.

06. The diameters and types of power cords leading from the power supply (converter) to the lighting objects must be in compliance with the respective requirements and the applicable international standards. If you are planning to use very long cords, please get in touch with us to get instructions as to the required cable diameter.

07. Make sure you neither damage the power supplies (converters) nor the input and output cords; never re-use any damaged components.

08. To prevent hazards, damaged lighting object cords must be replaced only by the manufacturer, the manufacturer's service center or a professional electrician.

09. Never deactivate any safety installations of the power supply manufacturer, such as protective conductor connectors.

10. When you install power supplies (converters), pay attention to the specified protection class. The usable temperature range of the power supplies (converters) recommended by us usually ranges from -25°C to +50°C at 230 V AC.

11. If you are using power supplies (converters) with nominal input voltages of less than 230 V AC, please contact us directly to find out about the applicable temperature ranges.

12. Power supplies (converters) must not be installed in areas where water may collect. Make sure the air circulation is strong enough so that the heat can escape.

C. Installation of Substructures on/in Building Structures

1. Mounting of Substructures

01. All metal substructures manufactured by us are produced exclusively based on the provisions set forth in EN 1090; the standard versions are designed specifically for the professional mounting to solid walls (masonry, concrete) as well as for wind zone 2.

02. If the wall materials are not in compliance with the above or if you are planning to install the products in wind zones 3 or 4, you will have to share this information with us prior to placing an order.

03. From our perspective, it is your obligation to comply with the statutory provisions pursuant to EN 1090 as well as all applicable laws, provisions and standards if you are ordering a metal substructure for the lighting products you have ordered from us, given that VGS is principally neither aware of the general local conditions nor of the special requirements with regard to the mounting of the substructure to the respective underground areas.

04. Please also keep in mind that any modifications to the substructures delivered by us may have a grave impact on the stability and/or static effectiveness of the design. Once again, it is your responsibility to comply with the applicable provisions.

05. Consequently, any information provided by our staff members with regard to the respective mounting of substructures to e.g. walls, can only be non-binding recommendations. If you should need binding information from us, please clarify these requirements with our staff in writing in conjunction with the submission of your inquiry.

2. Operation

01. Please comply with the mandated auditing and inspection deadlines for electrical devices and equipment.

02. Please also keep in mind that LEDs reach the end of their useful lives a lot sooner if they are being operated at excessively high temperatures (e.g. in the summer exposed to the direct radiation of the sun). Consequently, the lighting products have to be operated via a dimmer switch and/or a timer if installed outside.

3. Cleaning

Cleaning of the lighting objects on at regular intervals is recommended on an as needed basis. Do not clean paint and acrylic glass aggressively and do not use strong cleansers, such as ethanol or steel wool. Before you use any cleansers, you will have to test the compatibility of the materials in a concealed location. We recommend using a mild soap to clean the products.

4. Trouble Shooting

Problem	Solution
The lights do not come on.	Check whether the voltage on the power supply (converter) is actually 230 V.
	Check the secondary voltage of the power supply (converter).
The lights are blinking.	The dimensioning of the power supply (converter) is incorrect.

Please contact us if you should have any problems with your lighting products. After a root cause analysis, we will decide whether a repair can be performed on site or whether the products have to be returned to VGS.

5. Disposal

You will have to comply with the regional disposal standards for lighting products.

6. Miscellaneous

A wiring diagram for MaxxLuxx® lighting objects and power supplies (converters) is enclosed with every shipment.